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THE JOURNAL OF SCHOOL HEALTH

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Vol. VIII JUNE, 1938 No. 6

HEART DISEASE IN CHILDHOOD

T. DUCKETT JONES, M.D.

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In presenting to this association a few of the aspects of heart disease in childhood one becomes acutely aware of the many gaps which at present exist in our knowledge. In addition, the allotted time is insufficient to discuss many of the pertinent features of this problem in detail. It seems advisable to present a plea for the early recognition of the disease which is the common cause of heart distase in childhood, to discuss certain pertinent features of the disease, and to review briefly what results one may expect from the intelligent care of such children. Since congenital heart disease represents a relatively small percentage of children with heart disease it will not be considered in this discussion.

It is rheumatic fever and the concomitant rheumatic heart disease which is of particular interest because of its prevalence, and the frequency with which it results in a fatal outcome, or some degree of permanent heart damage. It is incorrect to speak of rheumatic heart disease as a complication of rheumatic fever, since the characteristic pathological lesions are found in the heart as well as elsewhere. Not all rheumatic fever patients have evident heart disease, but it is likely that some degree of heart involvement generally occurs. Fully 90 per cent or more of all heart disease in childhood is of this type, and the problem is indeed a common one in the urban population of the northern latitudes of our country. Various estimates have been established of the incidence in children of school age as being from 0.5 to 4.5 per cent, depending upon the locality. These studies are helpful in determining the magnitude of the problem, but relatively few have been performed with sufficient care to be of appreciable statistical value.

With but few exceptions, rheumatic fever and heart disease have never been made reportable and, indeed, the very nature of the disease offers sufficient obstacle to question the value of information obtained by routine compulsory notification. In a small, carefully followed series we have obtained

† Studies in rheumatic fever and chorea in this institution are made possible by a grant from The Commonwealth Fund.

* Read before the Child Hygiene Section of the American Public Health Association at the Sixty-sixth Annual Meeting in New York, N. Y., October 5, 1937. Reprinted from American Journal of Public Health, May, 1938, p. 637.

such divergent reports from some physicians as to indicate that material so gathered might be misleading. Despite this lack of actual statistical information concerning the diseases rheumatic fever and rheumatic heart disease, there are few physicians, public health workers, nurses, and even school teachers in the urban populations of the northern part of the United States whose attention has not been forcibly directed to the seriousness of this problem. This is especially true of those who have worked in children's or general hospitals.

It is well to admit at least three stumbling blocks when the disease is seriously considered: (1) the etiology of rheumatic fever is unknown; (2) it is probable that the disease has never been experimentally reproduced; (3) no specific therapeutic measures are available. Some would doubtless question the validity of these statements. There has been much suggestive and valuable work, but critical interpretation and analysis of the large volume of literature forces one to these rather distressing conclusions.

It is evident that further knowledge must be forthcoming before effective public health measures may be applied. The problem, however, is one of considerable importance with regard to health of the public, and certain features are sufficiently well established to warrant discussion. Of particular note are a few of the unusual features of the life cycle of rheumatic fever, Further, it is valuable to ascertain just what results may be accomplished in the care of the children with rheumatic fever and heart disease. Since any discussion of these questions involves our present knowledge of the cause of the disease, it would be wise perhaps to allude quickly to the various suggestions of a possible causative mechanism.

Since about 1900 the most numerous claims have been with regard to the streptococcus etiology of rheumatic fever. Various means have been suggested whereby some form of streptococcus is supposed to cause the disease. The suggestion may be outlined as follows: (1) The disease is the result of a generalized bacteremia with a specific streptococcus; (2) rheumatic fever is caused by the toxin of a specific streptococcus; (3) rheumatic fever is an allergic disease, the result of the development of hypersensitivity to the products of various types of streptococci; (4) the cause of rheumatic fever is in some way related to the immunological response of the patient to infection with toxin producing and streptolysin producing strains of the hemelytic streptococcus; (5) rheumatic fever is the result of sub-clinical or chronic scurvy with a superimposed streptococcus infection.

A detailed review of the above hypotheses would be time consuming and is impossible. For a variety of reasons it is necessary to express skepticism as to the validity of these claims. Reference has already been made to the effect that rheumatic fever has not been experimentally reproduced in animals. However, one of these five thories deserves further discussion. Re-

cently Coburn[1] has collected a large mass of valuable data concerning the natural history of rheumatic fever and its association with hemolytic streptococcus infection. This author believes that infection with certain strains of hemolytic streptococci followed by an immunological response, particularly as demonstrated by a rise in antistreptolysin titer, is of importance in initiating rheumatic fever. In a large carefully controlled series of studies now in the process of evaluation and preparation for publication, we have in a large measure substantiated the work of Coburn, but consider that the association between hemolytic streptococcus infection and rheumatic fever is not necessarily one of cause and effect. Infection with the hemolytic streptococcus and the subsequent immunological response may be merely a secondary factor precipitating the clinical manifestations of the disease.

In opposition to Coburn, Wilson and her coworkers[2] state that neither infection with hemolytic streptococcus nor respiratory infection in general has any distinct relation to the onset of the manifestations of rheumatic fever. The time honored association between sore throat (either tonsillitis or pharyngitis) and rheumatic fever is known to most students of the disease. Regardless of what one considers likely with regard to the etiology of rheumatic fever, this association seems likely to hold. When the cause actually becomes established such a feature will have some place, at least in the explanation of the life cycle of the disease. Such infections have a hemolytic streptococcus factor in a high percentage of instances. In observations on some 749 rheumatic fever subjects with regard to the association between the onset of rheumatic fever and various preceding events, 58.3 per cent of 576 rheumatic fever recurrences followed sore throats or colds. In others, there developed a definite hemolytic streptococcus immune response indicating a silent infection with this organism. It is also well known from our work and that of others that a recurrence of rheumatic fever follows fully 50 per cent of the sore throats in rheumatic fever subjects. Hence, this type of infection is of considerable importance with regard to the clinical manifestations of rheumatic fever and the progress of the disease in the individual patient.

Further suggestions concerning etiology have been numerous, and two of these warrant short discussion. It has long been suggested that rheumatic fever is caused by a filterable virus. In 1935, Schlesinger, Signy, and Amies[3] reported the finding of small bodies by high-speed centrifugation of the pericardial and pleural exudates of rheumatic fever patients. These bodies were visible by darkfield illumination and were reported to be specifically agglutinated by serum from rheumatic fever patients. They were considered to be similar to the so-called elementary bodies proved to be of significance in such well known virus diseases as vaccinia, psittacosis, ectromelia, and the various animal poxes. More recently, Eagles and his coworkers[4] have corroborated and extended this work. They have found apparently similar

bodies in materials collected not only from rheumatic fever and chorea patients, but also from those with rheumatoid arthritis. In corroboration of agglutination phases of the work, these observers point in addition to an indication of cross-agglutination between rheumatic fever and rheumatoid arthritis. Both of these reports are from the Lister Institute. Bodies appearing to be similar to those described have been easily obtained by high-speed centrifugation, but corroboration of the specific agglutination reactions yet remains to be demonstrated. It is disappointing that successful animal experimentation as the result of these reports has not yet been forthcoming. Such reports are of extreme interest and may prove to be of considerable importance, but further confirmation and successful animal experimentation will be necessary before it can be accepted as proved beyond question.

More recently, Wilson and Schweitzer[5] have published an extensive statistical report on 112 rheumatic fever families concerning environment, communicability, and heridity of rheumatic fever. This work stresses strongly that there is a hereditary factor distributed among the population which makes the bearer susceptible. Data are given which the authors believe indicate that this factor is transmitted as a single autosomal recessive gene. From the data presented, environment and contagion in the acquisition of the disease could not be evaluated beyond question, nor did the authors state that heredity is the sole condition essential for the development of the disease. They do state that hereditary susceptibility would seem to determine the familial incidence of rheumatic fever. The familial incidence has been long recognized, and in fact is as high as that of tuberculosis. Such a report as that of Wilson and Schweitzer should stimulate considerable interest and widen the scope of further investigations.

It may be well to discuss briefly contagion, since a high familial incidence has often been considered to be the result of communicability. Paul and Salinger[6] have pointed out that rheumatic fever spreads from one member of the household to another during or in association with respiratory infections. This was a carefully conceived and executed work. In our series, we have more than suggestive data in corroboration of the findings of these workers. Wilson and Schweitzer believe that if rheumatic fever is spread in families by contagion, the acquisition of the disease is primarily determined by some factor other than exposure to a rheumatic individual. This factor is suggested to be hereditary susceptibility. Rheumatic fever and heart disease have never been classified definitely as communicable diseases but the work of Paul is suggestive. Confirmation of these factors must await the demonstration of the cause of the disease.

Rheumatic fever in an acute form is generally easily recognized, as is also congestive heart failure in patients with rheumatic heart disease and rheumatic fever. In presenting a plea for the early recognition of rheumatic

fever and rheumatic heart disease, several pertinent features may be briefly reviewed. Some of these features are not generally appreciated, and all are important in understanding the problem which any child with rheumatic fever or rheumatic heart disease presents.

1. *Chronicity of Rheumatic Fever.*—This feature has been stressed by Swift.[7] Save for those who have spent some years in the study of the disease, it is poorly recognized. It is rare in childhood for all evidence of rheumatic fever to subside within several weeks of the onset of the acute phase of the disease. The process is more often of months' duration, and in some, it persists for years. In many children who ultimately succumb, the disease apparently never became inactive. The symptoms and signs may be mild and very low-grade, but they are significant. Such symptoms may be briefly mentioned as varied degrees of joint pain, low-grade fever, subcutaneous rheumatic nodules, erythema marginata, frequent non-traumatic nosebleeds, abdominal or precordial pain, loss of weight, or even failure to gain weight, etc. Sydenham's chorea has long been considered to be associated with rheumatic fever, and the association is indeed close. There is evidence that chorea, without other monifestations of rheumatic fever, is not especially conducive to the development of rheumatic heart disease. The chronicity of chorea is well known. Congestive heart failure in the child with rheumatic heart disease should be considered evidence in itself of active rheumatic fever.

2. *Sub-Clinical Rheumatic Fever.*—With the cessation of the clinical manifestations of rheumatic fever, the disease does not become at once inactive. There is usually laboratory evidence of the continuation of the active process. This persists for varying lengths of time, from two or three months to several years. Laboratory tests of value in this regard are an increase in the sedimentation rate of the red blood cells, repeatedly elevated leukocyte counts, and prolongation of conduction time by electrocardiogram. There is pathological evidence which supports the contention of the continuity of active rheumatic fever in a sub-clinical form, as indicated by these tests.

The importance of such a phase of the disease is obvious. It explains the apparent silent development of or increase in the degree of rheumatic heart disease. Also it makes understandable the ease with which clinical manifestations appear. Intelligent clinical care of the patient is to some extent dependent upon the recognition of this sub-clinical phase of rheumatic fever.

3. *Recurrences or Recrudescences of Rheumatic Fever.*—Rheumatic fever is a recurring disease. It is unusual in the childhood form of the disease for the patient to have only a single illness. The severity of the individual recurrences is to a large extent the determining prognostic feature. Especially important with regard to recurrences is the first five or six years from the onset of rheumatic fever. In this time, the disease most often

recurs. The majority of rheumatic fever subjects who fail to develop considerable cardiac damage, especially cardiac hypertrophy, during this time have a good prognosis.

There is no evidence available which indicates definitely whether or not recurrences are an expression of re-infection.

4. *The Importance of Events.*—Certain events have been noted which seem to influence the onset of the clinical manifestations of rheumatic fever. These are often associated with upper respiratory infections. Usually, rheumatic fever develops within one to three weeks after such an event, there being at times a so-called silent period. One is familiar with the frequency of recurrences of rheumatic fever following such a procedure as tonsillectomy. Other operative procedures, accidents (such as broken bones), severe sunburn, extraction of teeth, and a variety of minor non-streptococcal illnesses have been observed to precipitate rheumatic fever. Bland and Jones[8] have called attention to these, as well as to recurrences following single doses of typhoid-paratyphoid vaccine intravenously (non-specific protein shock therapy). These events play a very definite rôle in the life-cycle of rheumatic fever, though probably secondary to other factors.

The frequency with which respiratory infections are precipitating events in rheumatic fever brings to our attention some of the disadvantages of the present attitude of school authorities. We have been impressed with the school-room as the common source of respiratory infections. It has taken long, persistent education of authorities, teachers, and even physicians to obtain co-operation in an attempt to curtail the exposure of rheumatic fever subjects to respiratory infection. The serious and varied complications of respiratory infection in public and private schools offers a distinct challenge to the medical profession.

5. *Evaluation of the Presence or Absence of Active Rheumatic Fever.*—This is perhaps the most important feature to be determined in the clinical care of the patient with rheumatic heart disease or previous rheumatic fever. Too long has medical attention been directed to an evaluation of the degree of rheumatic heart disease present or an interpretation of various cardiac murmurs. Clinical symptoms and laboratory tests indicative of the presence of active rheumatic fever have been minimized. It is important to recognize even sub-clinical rheumatic fever, since such patients are prone to recurrences of the disease and must be protected from various events and given rest therapy at this time. It is the active disease, rheumatic fever, which is responsible for the fatal outcome in children and young adults. Full 80 per cent of the deaths we have observed result from rheumatic fever—Bland and Jones.[9] Hence more attention must be focussed on the evaluation of this process.

6. *The Value of Rest.*—Since no specific therapeutic measures exist we must turn to one of the most generally used laws of nature and physiology

for our most valuable agent. There are no adequate data which prove that rest will either prevent the development of or increase in rheumatic heart disease, though there is a general impression among students of the disease that it is of material value. It is probable that rest should be continued so long as there is any evidence of active rheumatic fever. If for no other reason, rest tends to minimize the occurrence of events which often heighten the symptoms. The chronicity and the advisable long period of rest, render the treatment of the child with rheumatic fever a difficult problem.

Results of Follow-Up Studies

Since 1921 the House of the Good Samaritan in Boston has been caring for a large number of patients with rheumatic fever, chorea, and rheumatic heart disease. Some 1,500 children and young adults have been given long hospitalization during this time. The most important single measure in the type of treatment has been rest during active rheumatic infection. An attempt has been made to educate the patient and family with regard to the features of the disease which have been stressed.

So far as possible, in subsequent examinations we have attempted to determine the presence or absence of active rheumatic fever at each visit. Not all of these patients came to our attention in an early phase, but the series represents a fairly accurate picture of the disease as seen in childhood.

The follow-up studies presented are relative to the first 1,000 patients, observed for an average period of 10 years from the onset. The average age of onset was 8 years, and the average age at the time of the last observation was 18 years. Hence the data represent the first decade of rheumatic fever. Upon discharge from the House of the Good Samaritan, 672 of the 1,000 cases had evidence on physical examination of rheumatic heart disease; 328 had no evidence of rheumatic heart disease, and are classified as potential rheumatic heart disease subjects. It is interesting to note the variations which have developed in this group during the 10 year period. Of the 328 patients without evident rheumatic heart disease, 251 are still free from any evidence on examination (7 of this group have died of causes other than those associated with heart disease); 71 have developed some degree of rheumatic heart disease (5 are now dead). Reliable data are not available on 6. Of those patients developing rheumatic heart disease during the 10 years, about one-half did so as the result of recognized rheumatic fever, the remaining half having developed it silently. Of the 672 patients with rheumatic heart disease at the time of their discharge, 230 (34 per cent) are dead. The status of 188 (28 per cent) remained unchanged. In 120 instances (18 per cent) there has been definite evidence of a progression of rheumatic heart disease. In 119 (18 per cent) there has been an evident improvement in the signs of rheumatic heart disease. In 53 of these patients, the physical signs have regressed, while in 66 all evidence of heart disease on physical examination has disappeared. On 15 patients (2 per cent) we

were unable to obtain adequate data with regard to the progress of their disease. The present status of the entire group is as follows: 242 are dead; 310 are potential rheumatic heart disease subjects; 427 have definite rheumatic heart disease, while on 21 data are insufficient. Of the 427 patients having rheumatic heart disease and alive, there is no limitation of physical activity in 287, while in 119 the limitation is moderate and in only 21 is there a serious physical handicap. It is encouraging to know that in this large group of patients, 597, nearly 60 per cent are able to carry on a normal physical life 10 years after the onset of the disease, and the number with severe limitation of physical activity is indeed small. This lends considerable encouragement to those interested in the care of rheumatic fever subjects, and points definitely to the fact that it is a disease in which one may expect good results in a considerable number of instances. The distressing mortality rate of 24.2 per cent should make us double our efforts to add additional information concerning this prevalent disease.

In conclusion, it is evident that public health measures are at present sharply limited because of lack of knowledge. A plea is presented for the early recognition of rheumatic fever and rheumatic heart disease in childhood. The problem is large and difficult, but with early recognition excellent results may be obtained in a large percentage of cases. In an encouraging percentage, clinical evidence of rheumatic heart disease regresses and even disappears. The majority are able to lead an active physical life 10 years after the onset of the disease.

Education of the child and parents with regard to the features of rheumatic fever and heart disease stressed above, is helpful in obtaining results. Each patient should receive competent medical attention by men as well trained as the group of workers in the field of tuberculosis.

Further study and careful observation of children with rheumatic fever and rheumatic heart disease are the only means whereby it will be possible to suggest and perform public health measures capable of solving this problem.

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SOCIAL WORK AND THE PHYSICALLY HANDICAPPED CHILD IN THE DEVELOPMENT OF A NEW STATE PROGRAM*

DOROTHY BUCKNER

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In the development of a new state program for services to physically handicapped children, in a state which is largely rural, and in which there previously have been no services on a state-wide basis, the problem which faces the medical social worker is that of developing effective methods for carrying out the type of medical social services which in the past have been available mainly to children in urban centers.

The methods used in setting up and carrying out an effective program will, of necessity, vary in different states because of the individual state setups, but they will essentially be somewhat similar and would be useful for comparison. It is because of this that it may be of interest to describe the preparation which was necessary before a program of services could be set up in Maine; the methods which have been used; how well they are functioning; and, at the present time, what the limitations are in the way of carrying out a complete program.

There were three vital needs which had to be met before the program could be set up. It was essential: (1) that the medical social worker should know, correlate, and be able to utilize the resources throughout the state; (2) that there should be established a close working relation between the State Bureau of Social Welfare and the State Bureau of Health (the Extension of Child Welfare Services being in the Bureau of Social Welfare; and the Nursing Division and Services to Crippled Children coming under the Bureau of Health); (3) that the purposes of the Crippled Children's program and the Extension of the Child Welfare Services, which are interrelated and dependent upon each other, should be carefully interpreted and understood by the community as a whole.

With these needs in mind the medical social worker, together with the Supervisor of Child Welfare Services contacted social agencies and nursing groups, both public and private, as well as the individual nurses and social workers in the field. In addition, the medical social worker spent a considerable amount of time contacting medical, social, educational, vocational, and lay organizations, service clubs, and key persons throughout the state in an effort to elicit their interest and cooperation in locating crippled children and in the program in general.

The time spent in this preliminary work led to a good deal of cooperation and actual participation of these groups in the program, and it acquainted the medical social worker both with the resources which were available in the state and those which were lacking and would need to be developed.

* Reprinted from the American Journal of Public Health, April, 1938, pp. 464-468.

It was learned that there was a scarcity of social, educational, and recreational resources, and that it would be easier to plan for the crippled child's medical care than it would be for his educational, vocational, and social needs.

Private social agencies were found to be located mostly in urban centers and their services to be available only for clients in those centers. There were no convalescent homes, and no facilities for mental hygiene work. Although occupational therapy and physiotherapy was available in all the hospitals which would be used for treatment of crippled children, only one hospital employed a medical social worker. Teaching facilities were inadequate, in that they were available in only one hospital, where provision was made for only 10 or 15 minutes a day instruction to each child in elementary grade work. There was but one special class for crippled children in the state, and this, although held in a public school building, was supported privately. There were no provisions for teaching children in convalescent, boarding, or their own homes, except in Portland where one teacher was available for this purpose. Tuition for vocational training could be obtained for crippled children through the Rehabilitation Division of the Department of Education, but there were no funds to pay for the cost of board and room during the training period.

The Pine Tree Society for Crippled Children, a branch of the International Society for Crippled Children, had been established in the state but had never actually functioned.

It was apparent that, in a state which is 65 per cent rural, one of the difficulties in getting children to clinics and hospitals would be arranging for transportation, and that private resources for this purpose would have to be developed before clinics could be held.

Prior to the extension of child welfare services the case work of the Bureau of Social Welfare was limited to the care of Mother's Aid Families and the supervision of Neglected and Delinquent Children committed to the bureau for care and protection. Because of the limitations of the type of social services offered by the Bureau of Social Welfare to the Bureau of Health, a close relationship had not existed between the bureaus, even though both were within the Department of Health and Welfare. With the development of new Child Welfare Services, which were to be of a preventive nature, case work of the service type would be available and there would be provision for the supervision of boarding homes for crippled children.

The services of public health nurses, either employed by the state or local and private agencies, could be used throughout the state, and it would be possible to arrange for physiotherapy for patients placed in boarding homes, and in some instances in their own homes.

Clinics could be held regularly in three hospitals located in the largest

communities and in rural areas when traveling conditions permitted. The clinics would be available to patients regardless of their financial status, the only stipulation being that the permission of the family physician must be obtained. Hospitalization for patients could be obtained at four private hospitals.

The determination of the patient's ability to pay in part or in full, for surgery, hospitalization, appliances, etc., could be made by the medical social worker and only those who were found to be financially unable to pay would receive treatment free of charge. A fund for appliances, X-rays, physiotherapy, and convalescent care, would be available for use through the Bureau of Health, and a Hospital Aid Fund through the Bureau of Social Welfare for patients who had not received aid from the town or State Division of Aid and Relief within three months. Arrangements would have to be made with towns and the Division of Aid and Relief for the cost of treatment for patients under their care.

In order to arrange for transportation before the first clinics were held, the medical social worker met three area chairmen of the Pine Tree Society. These chairmen had not yet set up committees and they had no definite program plans in mind. It was agreed that active committees would be set up immediately, and that their first function would be to arrange for the transportation of children, for whom transportation facilities were not available. In addition to this, arrangements for transportation were made possible through the efforts of local service groups, whose interest and participation had been aroused mainly by the local nurses and social workers.

It was necessary to establish several working relationships in order to make it possible for medical and medical social recommendations to be carried out rapidly, and to prevent the unnecessary transportation of patients.

Arrangements were made with the Nursing Division, the Bureau of Social Welfare, nursing organizations, and social agencies, for all patients to be seen prior to coming to the clinic, by either a nurse or social worker and a refer blank filled out and sent in, together with the family doctor's consent slip giving permission for patient to attend the clinic.

The refer blanks were to supply the following type of data: Economic Status; Religion; Medical, School and Social History; Transportation Facilities, Verification of patient's legal settlement; and determination as to whether or not the patient's family was receiving public assistance, or had received any within three months.

The School and Social History, in detail, was to supply the following data: *School History*: School attended (parochial or public), location of school, distance from home, transportation, age at entrance, age when leaving school, reason. Special school or tutoring, etc., high school, vocational. Time lost due to lack of transportation, time lost during hospitalization or care at

home. Mental rating. School adjustment, with teacher and other pupils. Plans for rehabilitation. *Home*: *Physical Set-Up,* Description of neighborhood and house, number of rooms, number of bedrooms, sleeping arrangements, location of bathroom and toilet, heat and light. Suitability of home from a physical standpoint for care of patient. *Family Relationships*: Attitudes, parents to each other, parents to patient and other children, patient to parents and other children. Suitability of the home from a psychological standpoint for care of patient. *Cooperation of patient and patient's family*: Estimate of actual or potential cooperation of patient and of patient's parents regarding medical treatment. *Social Data and Comments*: Family history and background. Type of parents. Management of patient and other children. Estimate of present economic situation of family. Recreation and special aptitudes of patient, pastimes, interests, playmates, etc. Interested agencies and individuals and why interested. The key person in the social situation, whether a member of the family, a relative, a private individual, or a member of an agency.

Authorization was obtained from the Bureau of Social Welfare for the medical social worker to pass on the eligibility of patients for hospital aid, and the hospitals were notified to this effect by the Bureau of Social Welfare. It was, in addition, requested of the field workers that if the patient's family had been receiving public assistance within three months they should obtain authorization from the local overseer of the poor, or selectment, for the cost of therapy, appliances, or hospitalization, which might be ordered at the clinic, to be met by or through the town.

Six months after the clinics were started, the Pine Tree Society was reorganized and a new president appointed. She was one of the area chairmen, who had become greatly interested in the Crippled Children's Program, and had been responsible for a local school board taking over the financial responsibility for the one special crippled children's class in the state. She was also chairman of the legislative committee for education of the Parent-Teacher's Association, and it was hoped that it would be possible, through her, to obtain legislation which would provide for the compulsory education of crippled children in their homes. The impossibility of obtaining legislation for adequate teaching facilities for children in all of the rural schools this year, however, made this impossible. A Seal Sale was conducted by the Pine Tree Society at Easter time, and it is hoped that by next year there will be funds available through this society to help in carrying out plans for the teaching of crippled children in homes, and to pay for the cost of board and room for patients whose rehabilitation plans cannot otherwise be carried out. The Services for Crippled Children is directly connected with the Pine Tree Society in that the medical social worker and the Medical Director are Directors of the Society, and the latter is also a member of the Executive Committee.

For the present time the Pine Tree Society is supplying transportation in five areas, and within the year it is hoped that the remaining areas will be developed.

I think it can safely be said that the medical treatment and follow-up of the crippled children, under the care of the Crippled children's service in Maine, is being carried out adequately. Reports of clinics and hospital recommendations are being given to the nurses and social workers in the field, and they are doing splendid work in the way of seeing that these recommendations are carried out and that patients return to clinics. The clinics have consistently grown. New cases continue to increase at a steady rate and for the most part patients return when check-ups are requested. That the value of the service is realized by rural physicians is shown by the fact that more and more cases are being referred in directly by them.

The information regarding the economic status of patient's family, which has been sent in on the refer blanks, has made it possible for the medical social worker to make financial arrangements quickly for the patient's care. Arrangements for hospitalization have been made as desired by the consulting orthopedists. This is shown by the fact that, even though over 700 cases have been seen in one year, there is no real waiting list for hospitalization. Arrangements for hospitalization have been made at the time of the clinic visit and for the most part patients have been admitted to the hospital on the same day.

It has been possible for the medical social worker to make arrangements, at the time of the clinic visit, for patients to obtain X-rays, physiotherapy, and apparatus, etc.

The school, social, and environmental information which has been obtained through the refer blanks, has made it possible for the medical social worker to interpret the social conditions of the individual patients to the orthopedic surgeon, and together with him plan for the patient's medical social treatment. This information has also served as a basis of selection for those patients and families who would need medical-social treatment.

Medical-social services have been carried out mainly by the public health nurses and by the social workers in the Bureau of Social Welfare. Where actual case work has been needed, the work had been done mainly through the Bureau of Social Welfare, due to the fact that there are so few private agencies in the state. The amount of case work services which could be supplied by these workers during the past year has been limited because the plan for Child Welfare Services was in the process of development. At present the social workers in the Bureau of Social Welfare are serving as actual field staff for the medical social worker.

I think it is important to point out that, if the development of Child Welfare Services within the Bureau of Social Welfare had not been provided along with the development of Services to Crippled Children within the

Bureau of Health, it would be impossible for the latter to provide case work treatment for the patients under care.

The main limitations to the carrying out of a complete program of medical social services at the present time are: (1) the inability to arrange adequately for the education of crippled children during hospitalization and convalescence, as well as for those children who cannot attend school because of their disabilities; (2) the lack of funds to meet the cost of board and room for the children who for this reason will not be able to have vocational training; (3) the impossibility of supplying sufficient intensive medical social treatment for patients who may need help in making satisfying social adjustments. Medical-social workers are needed in the hospitals and in the field to supply skilled services before this last need can be met.

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The County Nurse and School Health Education— Here is a rather complete discussion of the various ways whereby the county nurse may contribute to the health and welfare of the children of the community. Special emphasis is placed on the nurse's relationships with parents, teachers, physicians and other agencies in the area in which she is stationed—Mrs. Florence Apple Twaddle, Hoosier Health Herald. Published by the Indiana Tuberculosis Association, 130 East Washington St., Indianapolis, Indiana, October, 1937, p. 13-17. E. E. K.

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What a Father Means to a Child—Parents should work out their disciplinary methods together and be consistent in following them, says this writer. Above all things it is important that parents agree in the presence of the child. In general, it may be said that from the beginning both parents should share the responsibilities and problems of child training.

Although the mother may for various reasons play a slightly larger part in the earlier years of a child's life, the father's understanding and comradeship are very essential to his growing son or daughter. Very often it is from the father that fundamental attitudes towards the opposite sex are acquired. —Dorothy I. Roberts, Health, published by the New Haven Department of Health, September, 1937, p. 2-3. E. E. K.

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Dental Progress— Dental Directors have been appointed to assume duties in three State health departments. They are: Dr. Edward J. Doran of Buffalo—appointed Dental Director of the Division of Maternity, Infancy and Child Hygiene, New York State Department of Health; Dr. Quannah S. McCall, of Reno—appointed Dental Director of the Division of Maternal and Child Health, Nevada, State Board of Health; Dr. Allen O. Gruebbel of Lexingon, Missouri, and now completing a course at the Johns Hopkins School of Hygiene and Public Health, Missouri State Board of Health.

EDITORIAL

"It is better to be safe than to be sorry."

The editor does not know the source of this quotation. Apparently it is a part of our rural colonial inheritance.

This is pre-eminently the time of year when children and careless adults—and they unfortunately include a large percentage of our population —should be forcefully cautioned against the dangers of their summer surroundings and temptations.

Successful health education must stand on two legs; the protection of the individual against himself, and his protection against his environment.

Protection against himself includes largely the formation of good personal health habits as regards cleanliness, sleep and rest, exercise, play and recreation, care in the selection of food and the avoidance of gluttony, and care regarding contact with those having communicable disease. These factors in living lie largely within the control of each of us.

When we come in contact with environment, health—since many of the factors lie beyond our control—is more difficult to secure. Oftentimes we lack adequate information, and therefore have little or no warning of danger.

Shrubs, vines, and fruits that are poisonous are numerous in most sections of this country. While the country child should have knowledge of the appearance of these, oftentimes he does not. The city child usually exhibits dense ignorance and is therefore more likely to touch or eat poisonous material.*

In many sections, malarial carrying mosquitoes are a distinct danger, as is hookworm polluted soil.

Accidents, not only from the automobile, but from athletics, water sports, mountain climbing, poisonous snakes, sun exposure, and over exertion, increase enormously. Special efforts, by means of printed material, discussions, and lesson projects, should be made to increase and to renew information in these matters.

Not the least of the summer environmental hazards have to do with food and drink. The camper and tourist are particularly exposed to the dangers of spoiled foods: hot dogs and hamburgers that have been made from infected material or have not been kept at a sufficiently low temperature; salads—especially potato salad—are peculiarly likely to deteriorate in warm weather; fish and shell fish also spoil rapidly. The use of any of these unsafe materials may result in severe and even deadly, gastro-intestinal disturbances.

The periodical literature of health departments and organizations, and at times the daily press are frequent carriers of notices and accounts, not only of food poisonings, but of epidemics of dysentery, of scarlet fever, of indulant

* See Journal of School Health, February, 1938, p. 52.

fever, and of typhoid fever contracted by summer campers, tourists, and even by hotel occupants who have drunk water from polluted wells, ponds, or streams, or who have been sold infected unpasteurized milk.

In the summer time particularly, the traveler must use his information and intelligence to protect himself. *"Caveat Emptor"* should be constantly in his mind.

At this time of the year, the classroom teacher, the health instructor, the physical educator, and all those participating in the health service—especially the school nurse and school physician—owe a distinct duty to the children and to the community to emphasize the presence of these hazards, and to give instruction as to the means of avoiding them.

As to means:

Projects relating to the environment; the presence of dangerous plants, insects, and snakes, something of their location and habits illustrated by material collected under proper precautions. Descriptions and pictures stimulate interest and drive home facts.

Collections and displays of material from the literature also offer bases for discussion and information. These may be made up largely of clippings, of printed matter and pictures from periodicals, newspapers, and pamphlets issued by health organizations and health departments. These will gladly send such materials to teachers or others interested in health instruction and education.

The season, the approaching outdoor period, and the real dangers presented offer most convenient hooks—interest hooks—upon which to hang needed instruction. While care of poisonings, accidents, and intestinal infections is important, it is much more important to prevent these things by special instruction at the time of year when it is most needed. Forewarned is forearmed.

ABSTRACTS

Food Poisoning by Eclairs.—An outbreak of food poisoning comprising at least forty known cases and attributed to the eating of chocolate eclairs, occurred on October 23 in Newburgh and vicinity, in Orange County. In every case, in approximately three hours after eating of an eclair, the patient became suddenly ill with nausea, vomiting, abdominal cramps and diarrhea, with ensuing prostration. All patients however, recovered.

Investigation disclosed that all eclairs were from a single batch of about fifteen dozen, prepared during the night of October 22, at a local bakery, and sold on October 23. Sales were over the counter and no records were kept. The families of the forty cases accounted for 61 of the 180 eclairs manufactured.

The batch of fifteen dozen eclairs was made by the pastry baker at the bakery in the usual manner of the trade. He is said to have used powdered milk, cornstarch, sugar, eggs, and vanilla. The eggs were used directly from

the shell. These ingredients were beaten together and cooked for three minutes during which time, according to the pastry baker, the mixture boiled actively. The mixture was then poured into an enamel-lined tin can and placed uncovered near the back door to cool. The cooling was complete about 5 A. M. of October 23 and the shells were then filled and coated with chocolate frosting.

All the eclairs were made by the pastry baker without assistance from any other employee. He gave no history of recent illness nor were any skin lesions found on him. Only two other persons were present in the bakery during the night of October 22. Both gave no history of recent illness nor was any evidence of skin lesions found on them. One, however, admitted having had a sty but insisted that it had disappeared on October 20. One of the salesgirls in the bakery was also found to have a sty but she insisted that the sty did not develop until October 24. These histories indicate that staphylococcus infections had existed among employees of the bakery.

From a sample of the chocolate eclairs the State Laboratory reported that gram positive cocci were the predominating microorganisms seen on microscopical examination. Cultural examination showed the presence of staphylococcus aureaus in very large numbers.—Health News, New York State Department of Health, November 15, 1937, p. 185.

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Find the Cow!—That practically every extensive milkborne epidemic of septic sore throat is traceable to a cow with mastitis has become so well established that "Find the cow!" has become a slogan among those whose function it is to investigate such epidemics. That this essential and never simple undertaking can be made doubly difficult by dissimulation and lack of cooperation on the part of the owner of the dairy has been demonstrated in connection with the epidemic of 364 cases which occurred at Norwood, St. Lawrence county, during February.

The evidence pointed clearly to unpasteurized milk from one dairy and a milker was found to have had a severe throat about two weeks before the appearance of the epidemic. It was assumed that this milker had infected the udder of one of the cows but no cow meeting the "specifications" could be found. The owner at first denied having disposed of any animals. The department's veterinary investigator, however, stayed on the job for more than two weeks and eventually brought to light evidence that three cows had been sold and slaughtered previous to the beginning of the investigation, and one had been slaughtered by the owner after the investigation had begun. The owner finally admitted disposing of these animals, but flatly refused any explanation as to why he had done so. There is considerable ground for believing that the last cow slaughtered was the one responsible for the epidemic. —Health News, New York State Department of Health, April 18, 1938, p. 67.

Physical Defects in the Mentally-Retarded School Children—The problem of physical defects in the mentally-retarded school children has been studied in this country and abroad. The most extensive studies have been made in England by such authorities as Tredgold, English, and Burt. They state that out of 150,000 children examined, 0.5 per cent to 1 per cent were mentally defective. The figure in the United States, according to available statistics, is 2 per cent, and in Los Angeles about 1.9 per cent. It is of interest to note that there are more mentally-deficient boys than girls, the proportion given being three to two.

Within the past two months it has been my privilege to make a study of the health situation in nine hundred children in four development schools in Los Angeles.

Each one of these schools is representative of a more or less definite group, or combination of groups, of the Los Angeles population, and the children in all four of these schools are representative of any group which includes Negroes, Mongolians, Mexicans, and Caucasians; the latter including Italians, French, Slavs, Jews and native sons and daughters of Nordic descent. These nine hundred children represent about 25 per cent of the development school population of Los Angeles. These four schools I have compared to four schools for the normal children in their respective neighborhoods. The four elementary schools have about 2,700 children. Five of these schools have been under my supervision for several years, and I am well acquainted with the children who attend them. The information about the other three schools I received from health cards and from most valuable additional comments graciously given to me by their principals.

In reviewing the material which I have collected for my study, I came across many rather interesting facts. I found that there is a larger percentage of boys in the development schools, namely that there were 528 boys against only 372 girls among the nine hundred children studied, a proportion of four to three against three to two reported in the literature.

I found that 756 had physical defects, 234 had decayed teeth, 207 had diseased tonsils, 180 had poor posture, 150 had poor nutrition, 110 had poor vision and 80 were known to have poor hearing—the actual number of those who are deaf is probably much higher.

In order to help them receive whatever knowledge and training their mentality is capable of absorbing, we must endeavor to correct their physical defects and do it quickly.

I wish to suggest, for this purpose, the following health program which should be possible to introduce in each school; a program which should provide, in addition to health education, health practices in school:

All who are nervous, all who have serious visual defects, all who are borderline tuberculosis cases or are tuberculosis contacts, and all who have heart defects, should have a rest period daily, preferably in the open air.

All those who suffer from various forms of mal-nutrition, and do not have sufficient food at home, should receive lunch, milk, and cod-liver oil in school, also breakfast when possible.

Corrective physical training should be given to all the children with postural defects and poor coordination. The exercises should be made interesting, not tiring, and given systematically. This type of physical education will tend to develop the capacity of the chest and thus improve the condition of the lungs and heart, and also train the muscles to better performance of manual work.—Marian Goldwasser, M.D., Reprint from California and Western Medicine, November, 1937. (E. E. K.)

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Common Skin Diseases in the Schools.—At the time when school nursing was started in New York City in 1902 the most obvious need was for the control of communicable disease. Many children were out of school because of infectious eye and skin diseases and other conditions which made them a source of danger to other children. They frequently remained at home and even played about the streets for many weeks or months without receiving proper medical attention, and moreover they were deprived in the meantime of their opportunity for education.

The communicable disease situation in the schools today is quite different from that in 1902. Now there are relatively few infectious eye and skin diseases found in the schools, due probably to more satisfactory home conditions, to health education resulting in better personal hygiene, and to the school health program for early discovery and follow up of cases.

At the present time, the teacher makes a daily inspection of her class, with the result that many teachers have become health conscious and are taking extra-curricular health courses. And while the teacher is neither prepared nor expected to make an actual diagnosis of any medical condition, she is able to select such cases as seem to demand immediate attention.

There are certain skin diseases which are apt to occur among the children of a large city such as New York. The most common skin diseases with which the school nurses come in contact are: pediculosis, ringworm, favus, scabies, and impetigo. These cases are found among the children referred to the school physicians and nurses by the principals and teachers, and they are also discovered by the nurses themselves during their health inventories in the class-rooms. Sometimes they are discovered by the doctor when he is making physical examinations.

At school a child must be guarded not only against the acute communicable diseases, but against the minor contagious diseases of the scalp, skin, and eyes.

It is the nurse's responsibility to detect a suspicious condition, but the diagnosis rests with the doctor. When a positive diagnosis is made, either

by the school doctor or a private physician, the nurse advises the parent as to the methods of carrying out the prescribed treatment. This instruction may be given either in the school or the home.

With the exception of pediculosis, no positive diagnosis is ever made by the nurse of any disease. A suspicious condition is referred by her to the family physician or clinic physician, who makes the diagnosis, determines the severity of the case, and outlines the necessary treatment.

In 1914 the school nurses found 42,522 cases of skin disease among school children. In 1936—with a much greater school enrollment—they found only a little more than 25% of that number (11,440 cases). The drop in the number of instances where pediculosis was noted by the nurse is ever so much greater. The 6,430 cases noted in 1936 are less than 3% of the 246,193 which were found in 1914.—Stella R. Cohen, R.N., Superintendent of Public Health Nurses, Department of Health, New York City. Public Health Nursing, February, 1938, pages 120-4. (E. E. K.)

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Physical Development— In opening a discussion at a meeting of the section of physical medicine of the Royal Society of Medicine, Lord Dawson, president of the Royal College of Physicians, said that proficiency in games often existed with deficiency of frame and function. Also games, unless correlated with basic physical training, could inflict overstrain. Sports and games were the fulfilment of physical training and should rest on it, for planned physical exercises increased the strength, control, and response of the body. Moreover, physical training developed certain qualities which were basic to sound physical education—posture, poise, flexibility, and rhythm of movement and efficient respiration. The government had decided to establish a national school of educative and recreative training, and the board of education is actively concerning itself with the realization of that project. In it, teachers of anatomy and physiology will work side by side with teachers of physical training. The total functional value of the individual will be studied, having regard to his makeup and environment.

Physical education would need the guidance of trained physicians. In the future those who aspired to be medical officers of schools would require to include in their training a knowledge of physical education. Other measures recommended by Lord Dawson were to push to the forefront the best of our youth, who would create a standard for their own generation, to consider the granting of loans (as in Germany) to medically approved marriages, the obligation to repay being reduced on the birth of each child, and to institute motherhood clinics. In short, we should plan for quality. When posts were to be filled by competitive examination, this should include tests not only for mind but also for body.—Journal, A. M. A., May 7, 1938, p. 1615.

Present Trends in Health Education.— All over the world, health education is increasing in importance. Health education is winning wider recognition as a distinctive procedure or agency for the promotion of the public health, not merely an incidental accompaniment of treatment or sanitation. It is becoming more distinct from these other activities. More educational skill is going into the process.

There is a growing realization that education costs less than medical care. We have come to recognize that doing things to people is often easy but it is expensive and of temporary benefit. Showing people how to do things for themselves may take a little time, but it is relatively inexpensive and its results are lasting. Moreover, the people are strengthened by the latter process and weakened by the former.

More and more attention is being given to the presentation of health information at the level of intelligence and interest of the persons concerned. The primary purposes of school medical and nursing service is education, according to the White House Conference. And yet, by and large, we are only beginning to operate those services as though we believe in this point of view. We still have a long way to go in making the experiences of the child as he comes in contact with these services more truly and helpfully educational.

Health education in the classroom broadens the opportunities for the practice of preventive medicine by the private practitioners of medicine and dentistry, and thus may replace school health services in part, to the great benefit of the taxpayer and with a strengthening of the self-reliance of the pupil. It is the job of health education to educate the people to appreciate and use the form of scientific medicine existing in the community.

A closer relation between the health education program in the schools and the community health program is becoming evident. The school may furnish invaluable aid in many of our outstanding public health projects. At the same time the school health education program needs to reach into the home more effectively. For its own effectiveness it needs to establish contacts with adult health education programs in the community. Here we find the need for directors of health education thoroughly trained in the health-medical sciences, in community health activities, in education, and in school health administration.

We see the growing tendency to organize and plan health education grade by grade, to leave the child training responsibility largely in the hands of the classroom teacher, and to plan on an educational basis the effective cooperation to be rendered by health specialists.

There is one trend to be observed in some parts of the country, though fortunately not in all, which should cause us deep concern. That is the tendency to discontinue the monthly weighing of children. Monthly weigh-

ing has as its first purpose the opportunity afforded to the child to watch his own growth. It is primarily an educational device, and there is no other incentive to sound health behavior so valuable as a desire to grow. There is no way of using this incentive unless the child can watch his growth. The second value in monthly weighing is its value as a danger signal in calling to our attention children who have stopped growing for long periods of time.—C. E. Turner, Dr. Ph., Sc.D., Public Health Nursing, September, 1937, pages 499-505. (E. E. K.)

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Light Reflection—The percentage of light reflection by factors of walls, ceilings, and window shades, registers largest with new white, which investigators of public health have found to be nearly 90 per cent. Buff reflects light up to 66 per cent; cream up to 80 per cent; light green up to 75 per cent, and dark green varies from 11 to 25 per cent. The reflection of light blue and pink is around 61 per cent. Yellow runs high, but natural wood brown stains and wood varnishes are low in reflection.—Sight Saving Review, March, 1938, p. 57.

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Yellow Blackboards— The National Institute of Industrial Psychology has turned aside from its investigations of the working conditions of factories and offices to those of schools and directed its attention to the strain of copying from the blackboard. It has now published an investigation entitled "Improving the Blackboard," by Dr. W. D. Seymour, which may render that time-honored article obsolete. The strain felt by children copying from the blackboard may be partly due to the repeated movements of the head and eyes and to changes of accommodation, but the question arose whether it was also due to copying from a blackboard on to white paper. The former has a reflection factor of from 10 to 15 per cent while the latter has one of from 85 to 90 per cent. The object of the investigation was to find whether a board with a much higher reflection factor than a blackboard would enable children to copy from it more quickly and with less strain. As a white board would cause glare, a light yellow board was chosen for the experiments, with blue as the color for the chalk. An instrument was devised to record on a moving tape the time taken by adults to read successively exposed short syllables presented first in white letters on a black board and then in dark blue letters on a yellow board. The words on the yellow board were read more quickly, the average difference being 15.4 per cent. The experiment was then made in the class room of getting children to copy the usual white letters on a black board and comparing the result with copying from a yellow board. The results showed an advantage in time of 10 per

cent for the latter. It is suggested that this saving in time represents a material reduction in strain. A further investigation is being made of the most suitable material from which boards of the color found best from the visual standpoint may be constructed.—Journal, A. M. A., April 2, 1938, p. 1120.

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Mouth Hygiene Programs.—In June, 1936, the Cleveland Child Health Association undertook to obtain information as to what was being done to solve the problem of mouth hygiene among the school children of the United States.

The cities whose mouth hygiene programs were studied were grouped according to population. The first group included the thirteen cities whose population exceeded 500,000 in the census of 1930. Information on programs in these cities secured by the questionnaire method comprises this report.

In addition to much detailed information regarding individual programs, the study revealed some rather interesting facts regarding the group as a whole. In the majority of cities the administration for the school mouth hygiene program rested with the Health Department. The percentage of children found to need attention varied according to the type of examination, personnel employed, and grades covered. There was considerable difference in the type and combination of personnel assuming responsibility for the school dental inspection, as there was in the number of grades given dental examinations. Likewise, in the facilities provided and the methods used to secure correction of dental defects, many different types of procedure were used. In most instances, following the dental examination, notices were sent to the parents, informing them that defects had been found, and suggesting that the child be taken to the family dentist. All of the cities made some provision for dental care; although none of them was able to meet completely the need for indigent service.

An attempt was made to learn of the extent of pre-school dental facilities in the cities included in the study. Four stated that they had no organized program for pre-school children. Four of the cities mentioned that they touched some preschool children through the summer round-up examinations. It is quite possible that other cities in the group might also have similar programs. Clinic services which included preschool children were reported by Los Angeles County, San Francisco, Chicago, Baltimore, Boston, New York and Cleveland. In most instances, however, the number of preschool children reached by the clinics was very small.—Report prepared and distributed by the Cleveland Child Health Association, 1900 Euclid Avenue, Cleveland, Ohio. (1937) p. 202. (E. E. K.)

Effectiveness of Rural School Health Program— A safe and healthful environment adjustable to the physical needs of pupils is essential in any school. Hygienic, comfortable surroundings not only provide a background of efficient and effective school work, but also are conducive to healthful living practice. It is the community's responsibility to make provision for an environment which will fulfill these requirements, and the teacher's responsibility to adjust the environment to individual needs.

In Cattaraugus County, New York, a real effort has been made during the past six years to improve on sanitary conditions found in the many small one-room schools. In a study recently made of sanitary improvements made over this period (1931-1938) health officials noted an annual improvement in 60.7 per cent of the schools observed. In bringing about these improvements, it is noteworthy that the superintendents of schools have relied entirely on persuasion and education. Many of the improvements were, however, teacher-inspired as the result of findings obtained from a school sanitation inventory. Teachers were quick to see that sanitary improvements provided opportunities for vital and far-reaching educational experiences on the part of their pupils. In these activities they were assisted by members of the Cattaraugus County School Health Service.

This study demonstrates, beyond a doubt, the importance of the "human factor" in securing public health improvements. As the result of the combined efforts of district superintendents, teachers, and health workers, the trustees of the county became convinced of need for further expenditures to improve sanitary conditions in the schools. The result was most gratifying in that it served to raise living standards both in the schools and in the community at large.—Evaluation of a Rural School Health Education Project. By C. A. Greenleaf and Ruth E. Grout. The Milbank Memorial Fund Quarterly, Vol. XVI, No. 2, April, 1938, pp. 156-172. E. E. K.

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Poor Fish—"This evolution business—they tell me that tracing our ancestry back to monkeys is only half the job: that actually our great-greats, a billion generations removed, probably were fish. I can't swear it's so, but I can see some evidence that makes it sound reasonable. It's a well-known fact, of course, that a fish, when he's in the right mood, he'll bite at almost anything. You take a sucker, for instance—every boy that's raised in the country, he knows that when the moon's right he'll grab at anything so long as there's a hook he can get caught on—I mean the sucker will. Well, sir, so many people have inherited that trait that the patent medicine fakers and that bunch, they've learned to capitalize on it. All they've got to do is bait their hooks with a little baloney and throw 'em overboard, and they can get a boat load of 'em in no time. I suppose that's why they call 'em 'poor fish.'

"I don't believe I'd do very well in that racket myself. One reason I never did much fishing: I was always kind of sorry for the fish. But it's really funny—the things folks will bite on. Some fellow will take a pound of salts, that you can buy for fifteen cents and he'll put it up in ounce bottles and call it some kind of crystals or something, and get some bird with an impressive voice to tell the world all the things it'll cure, and he'll sell it for fifty cents a bottle. Six dollars for fifteen cents' worth of stuff—you wouldn't think even a sucker'd bite on that. And say—I was reading that the folks that handle the advertising for 'em, they make even more than the ones that sell the stuff do."—"Doctor Jones" from Health News, New York State Department of Health, April 4, 1938, p. 59.

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School Nursing—Yesterday and Today.—When good school nursing of today is compared with school nursing as practiced three decades ago, progress is noted in the organization of the service, the preparation of the nurses, the activities selected for major emphasis, and the co-ordination of school and community efforts.

Nine trends in health and social welfare may be useful in determining just where to place emphasis in school nursing today:

1. The acceptance of the family as the unit for all health work.
2. Development of a better understanding of human behavior.
3. Co-ordination of all health services in the community.
4. An active and intelligent awareness on the part of every nurse in regard to all problems of nursing.
5. Close working relationships between the nurse and members of other professional groups with similar aims, such as teachers and social workers.
6. A clear-cut conception of our own program, and the ability to state in simple terms its place in the general campaign for human welfare.
7. A more comprehensive appreciation of eugenics as a factor in public health.
8. An increase in lay participation in school nursing.
9. More adequate initial preparation for the nurse, followed by sufficient education on the job to keep abreast of the times.—Lula P. Dilworth, R.N., Public Health Nursing, September, 1937, pages 522-525. (E. E. K.)

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Standardization of Precordial Leads—In recent years, there have come into widespread use electrocardiographic leads in which an electrode placed upon the precordium is paired with an electrode in contact with some part of the body distant from the heart. The first section of this pamphlet published by the American Heart Association deals with the joint recommendations of committees appointed by the American Heart Association and the Cardiac Society of Great Britain and Ireland relative to the routine use

of a single precordial lead. The need for these recommendations has arisen because of the confusion resulting from the lack of uniformity and precision in the technique and nomenclature employed by different individuals in connection with leads of this kind thus making a standard practice desirable.

In view of the fact that many workers employ multiple precordial leads the Committee on Precordial Leads of the American Heart Association felt that it was desirable to make further recommendations with reference to leads of this type. Accordingly the second portion of this pamphlet is devoted to a supplementary report for this purpose.—American Heart Association, Inc., 50 West 50th Street, New York City. P. 6.

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Personal Problems of Very Little People*—Following are quotations from a third grade class at Daniel Webster School, New Rochelle, submitted as the children wrote them:

My brother pesters me.

Big girls tease me. Ann is the worst in our neighborhood. She likes to tease little children that are much younger. Libby is next worse.

Some other children keep the rest of us from having a good time.

I don't have enough fun to suit me.

I would like many more friends. I don't have half enough.

My sister gets in my things. When I go to the movies she goes in my room and tears things all to pieces.

It is never quiet at our house. My mother makes so much noise when she does the dishes. It annoys me to hear the rattle of pots and silverware. I hate the crunching sound of newspapers. The noise of the telephone which rings all the time I do not like while I am trying to read.

I do not like the victrola which goes all the time at our house.

I get very tired of hearing people talk, talk, talk.

Every time I am naughty I get a "licken".

My two brothers bother me. One makes faces and the other punches me if he gets a chance, because I am the youngest.

My brother bothers me. He gets in my way if I am trying to do things.

My mother told me to pick up my toys and I tried to. My little sister kicked me in the shins with her leg that has a brace on. She calls me names and tells my mother to "shut up". This hurts me for I am very fond of my mother. I wish I could stop her.

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I have a dreadful time trying to go to sleep while the radio is going. I have one in my room but I am not supposed to have it on after I go to bed.

It is very hard for me to get up so early in the morning.

At home they put the two cars so close in the garage that there is not room to get my bike past, so I have no place to keep it.

I am a boy and my mother makes me set the table and make my own bed. I have to practice music hours and hours. I do not enjoy it.

Grown up people make us sit still. It is no fun.

It is a lot of trouble to put your wraps on the hook *always*.

All is not well at school either, as you will soon see—

Why can't we have more report cards, shop, and sewing?

Why do we always have to finish things we do not like?

I want more free time.

I want free recesses.

I want more free time in school.

I like to have special responsibility, like care of the plants.

I wish I knew how to change myself into a better student.

I have trouble with self-control.

I do not like school because the work is too hard and too much of it.

"Arithmatic" causes me a lot of trouble.

Big boys dare me to do things that are dangerous.

I do not know how to keep out of fights.

Please do not have substitutes at school. I cannot get used to them.

Why can't we print until the fifth grade?

Why do they make us work so hard in school and have to learn so much in just one year?

I do not like to have "Leckters" by special teachers.

New York State Education, May, 1937.

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Trends in Health Teaching—In 1928, the Onondaga Health Association offered to cooperate with the school authorities in a few village and rural schools in Onondaga County for the purpose of promoting school health education. A program was instituted which consisted largely of poster contests, demonstration lessons, exhibits and radio talks. The program was carried out under the immediate direction of a health educator. This method of making the children "health conscious" was continued until 1931, when, upon the advice of the State Education Department, arrangements were made for the health supervisor to have individual conferences with the teachers. Since then approximately 1,100 individual conferences with teachers are held each year.

The present health teaching program in Onondaga County emphasizes healthful living in particular. To this end there has been prepared "A Guide to the Teaching of Health in the Elementary School" which has been of tremendous help in planning the program. A monthly Bulletin, "The Exchange of Ideas" includes ideas and interesting experiences in health teaching which the teachers have experienced. All contributions to this Bulletin are voluntary. Group conferences have been found to be of considerable value

in helping teachers to know what is being done in other places. On these occasions such common problems as ventilation and lighting of the classroom, seating, sleep problems, prevention of colds, and many other hygienic problems are discussed. The school health education program of today in Onondaga County makes necessary cooperation and careful planning by school, home and community to the end that "children may live healthfully and grow mentally, socially and physically— a program which will meet the health needs of the whole child."—Trends in Health Teaching in Village and Rural Schools in Onondaga County. Mary B. Rappaport, Health Teaching Supervisor. Published by The Onondaga Health Association, 327 Montgomery Street, Syracuse, New York, 1937. (E.E.K.)

Recent Los Angeles "Damp Spell"—At last the reclaimed desert that Southern California so proudly boasts of being can add another claim to her long list of superlatives—a real flood. She won't have to take a back seat for anybody, not even Johnstown or Cairo.

Among many other school employees those of the Health Section did their share in piloting school children safely across street rivers and geysers. The nurses especially braved the torrents of water in getting youngsters safely to school and thereby helping to maintain the elusive, but necessary a.d.a. Several nurses worked all night in cooperation with the Red Cross in caring for flood victims in the Valley and Bell-Maywood areas. Our nurses thanked mechanical and civil engineers for paved streets, storm drains and flivers on March 2, 1938.

The nurses were even pressed into service to aid in a "blessed event" which occurred in the North Hollywood High School with the characteristic inevitability of such happenings—which wait for no man—not even the obstetrician. Health News, Los Angeles City School District, March, 1938, page 8.

NOTES

Schick—Dr. Bela Schick, discoverer of the Schick test for susceptibility to diphtheria, who is chief of the Pediartrics Department of Mount Saini Hospital, New York, has been awarded the Addingham Gold Medal, a British honor for "the most valuable discovery for relieving pain and suffering in humanity."

Dr. Schick had previously received the gold medal of the New York Academy of Medicine at special ceremonies commemorating the twenty-fifth anniversary of the announcement of the Schick test.

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Hundred Per Cent— As a result of a campaign sponsored by the local school board at the suggestion of the county nurse, Hala A. New, R. N., every child in the public schools of Dennison, Illinois, was recently vaccinated against smallpox and typhoid fever and treated with toxoid for the prevention of diphtheria. This small community, with a total population of

about 90 and a school enrollment of 43, has established a record that is probably unequalled by any other community in Illinois.—Illinois Health Messenger, May 1, 1938, p. 71.

Membership in the American Association for Health and Physical Education—Each member of the American School Health Association who is also a member of the American Association for Health and Physical Education is requested to send immediately his or her name and address to the Editor of The Journal of School Health.

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Rural Health Contest Winners—On April 25, 1938, the names of winners in the 1937 Rural Health Contest were made public by the United States Chamber of Commerce. There were 241 entries.

The health contest is conducted annually by the Chamber of Commerce of the United States in cooperation with the American Public Health Association, and is financed by the W. K. Kellogg Foundation of Battle Creek, Michigan.

In the Northeastern Division, the winner is Columbia County New York.

In the Eastern Division, the winner is Fayette County, Kentucky.

In the Southeastern Division, the winner is Pike County, Mississippi.

In the North Central Division, the winner is Woodbury County, Iowa.

In the South Central Division, the winner is Amerillo-Potter County, Texas.

In the Western Division, the winner is Clallam County, Washington.

Special awards for having won the Rural Health Contest twice in their respective geographic districts and for having maintained their previous high standards of achievement during 1937 go to Davidson County, Tennessee; El Paso County, Texas, and Shawnee County, Kansas.

In the Canadian contest, forty-one full-time health units being eligible for competition, the winner is St. John's-Iberville-Laprarie-Napierville Counties Health Unit, Quebec.

Some of the points considered by the comittee of health experts entrusted with making the awards are:

1. The extent to which the water supply is protected.
2. The point at which sanitation has advanced in rural homes.
3. The safety of the milk supply.
4. Adequate care of prenatal cases.
5. Medical supervision of infants.
6. The availability of well trained nursing service.
7. The degree in which local physicians and dentists aid in the public health program.
8. Activities to control tuberculosis and syphillis.

These and many other points are used in grading a county or district competing in the Contest.

BOOK REVIEW

Teaching for Health.—Marguerite M. Hussey. New York University Bookstore, New York City, 1938.

After tracing the history of the efforts to teach health, the author discusses the factors influencing health, efforts to develop health traits, many factors—such as social activities, and school load—that are detriments to good health, and the place and equipment used in teaching health activities.

For successful health teaching some other things must be known about the child. What of his community, his home, the economic and social status of his parents, etc.? What of the School? Is the program conducive to good health in such factors as play facilities and equipment, school room cleanliness and decoration, lighting, eye conservation, seating, opportunity for rest and relaxation, and the like? What, too, of the individual child? Has he personal handicaps that seriously interfere with good mental attitudes, or that discourage him from efforts to improve his health, or has he defects of mouth or speech that seriously interfere with his physical or mental development. Cooperation between home and school also is necessary.

The later chapters are devoted to discussion of techniques, teacher problems, including such matters as leadership, time allotment, objectives, procedures, and methods for testing health and health habits, the use of materials, exhibits, activities, and objectives, and means of evaluating the materials and findings.

There is also included a chapter on the objectives, procedures, outcomes, etc., as a basis for building units as well as the use of motivating devices, printed material, and, finally, ways of measuring results.

This is an effort to help the class room teacher. It is a consideration of the elements involved in health and in environment in order to establish objectives, procedures, and means of judging whether the procedures are successful. This text would be materially improved for the teacher's use if it had been amply reinforced by specific references in the various fields discussed, which would make it possible for the teacher to pursue farther any point in which her interest is aroused.

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MEETINGS

Western Branch, American Public Health Association, Portland, Oregon, June 6, 7, 8.

National Tuberculosis Association, Los Angeles, Calif., June 20-23.

The American School Health Association and the American Public Health Association, October 24-28, Kansas City, Missouri.

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